

The Sisyphus Paradox: Framing the Acquisition Reform Debate

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Sisyphus, king of Corinth, was an intriguing mythological figure banished by Zeus to the nether regions of Tartarus. There he was condemned for eternity to push an enormous stone uphill only to have his strength fail near the summit and the stone roll back down. His plight serves as a lesson for efforts to streamline the way arms and equipment are developed and acquired.

Defense acquisition—or procurement as it is commonly known—is the process whereby the services avail themselves of the technological innovations and capabilities in the industrial base through expenditures of national treasure—a process that continues to consume a significant share of discretionary Federal spending. Various proposals are being considered that could streamline the system in which this process operates. Like Sisyphus, the government has repeatedly tried to reform the acquisition process only to find the stone rolling back. Though we rightfully pursue reform we ironically do so in a system which, by the express intent of the American body politic, was not designed for efficiency. This is the Sisyphus paradox of acquisition reform and is found in a number of precepts which both frame and illuminate an ongoing debate.

These maxims provide a perspective on a policy dialogue too often bounded by exaggerated claims or hopeless resignation. Some are lessons

which were learned but seemingly overlooked or forgotten by policymakers and practitioners who are occasionally lulled into thinking there is little real difference between public and private sector practice. The debate and any meaningful reform accruing from it will be best served by reconsidering these factors. Effective reform must occur in the context of the governmental system in which it operates. To grasp the structural impediments is to ease the way for critical changes.

The System

The defense acquisition process is firmly rooted in our system of government. Like the institutions of which it is part, it is based on shared power and checks and balances. Congress, the White House, the Pentagon, and the services have vested interests and strong influences which are exercised through the power and constraints imposed by oversight, direction, security needs, and fiscal wherewithal. The judicial system also plays a role, with courts hearing a range of challenges from small contract complaints to multi-million dollar claims against the government (such as the Navy A-12 aircraft program). As one observer noted, acquisition begins with the "simple truth that soldiers, policymakers, technicians, and politicians all have a right to some say over weapons acquisition."¹ The paradox is that since each stakeholder exerts only partial control over selected parts of the process no one controls all of it.

Decisions to initiate major new projects in research, development, and production may be driven by a variety of perceived threats, military necessity, technological opportunity, or defense

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contracts in congressional districts, but the ultimate decisions about weapon systems are political. President Ronald Reagan's resolution to embark on the Strategic Defense Initiative is a noteworthy case, but so is the Trident, which was shaped by the SALT negotiations, a national election, and influential personalities as much as security concerns. According to one argument, such decisions incorporate the pluralist paradigm wherein "political outcomes reflect the pulling and hauling of a multitude of interest groups."² As with policy choices in virtually any other area of government, weapon systems and military force structure are fundamentally political outcomes.

The defense acquisition system was designed with many goals in mind, but efficiency was not one of them, and notwithstanding public protestations to the contrary this is precisely how the American body politic would have it. How can this seeming paradox be?

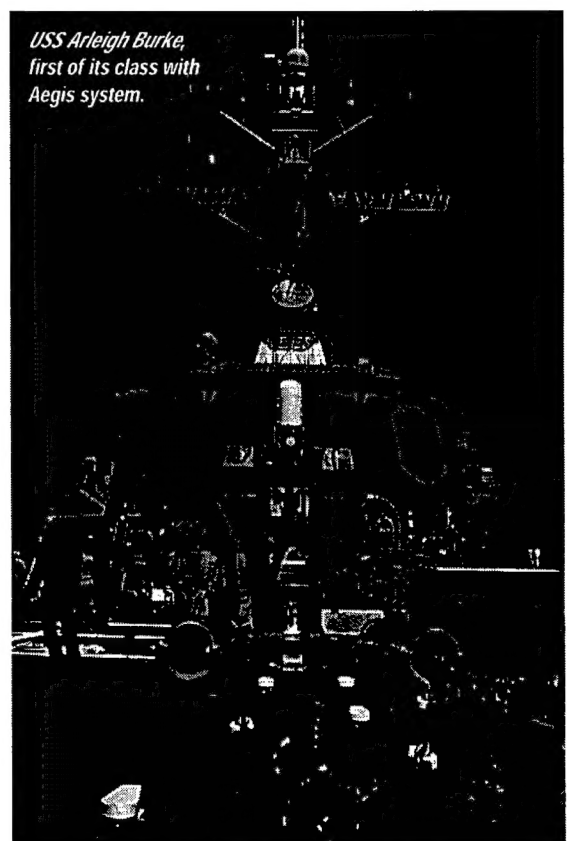
Historically, whenever the Federal Government has sought to purchase goods and services from the private sector, safeguards have been put in place to ensure that all bidders can compete for business. Equity and equal access are goals of the defense acquisition system, and no corporate giant or small business seeking to contract with the government would have it any other way.

Certainly there are other goals. Military capability and national security are most assuredly primary cornerstones of the system. The Aegis cruiser, SR-71, and multiple launch rocket system were clearly products of broad-based national security requirements and technological opportunity.

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Affordability is a consideration with the B-2 bomber (as are questions about threat and mission). The new joint strike fighter seeks to fulfill

needs across all the services and at least one European country. Thus performance, cost constraint, and joint and combined interoperability are legitimate aims of the system. As one official has suggested, "The current system is not broken. It is well designed to accomplish the goals that the Nation values . . . [but it] represents trade-offs among competing, often contradictory goals and, not surprisingly, works imperfectly as a result."³ It is imperfect. Efficiency is not an inherent or explicit feature of the acquisition system. Thus when the Pentagon proposed rules in mid-1996 under which contracting officers could bargain only with vendors they judged to be most competitive, industry reacted with caution if not skepticism. As an officer of a large aerospace manufacturer explained, "This is a sea change in how we do business with the government, and we



USS Arleigh Burke, first of its class with Aegis system.

U.S. Navy (James R. Gust)

don't want to sacrifice fairness in the pursuit of efficiency."⁴

This element of the debate also belies a phenomenon which is more unique and appropriate to peacetime. Questions of efficiency were not part of the debate over the Manhattan Project or the effort to orbit an American satellite after the Soviet Sputnik launch in 1957. Questions about the taxpayers' return on investments clearly and rightfully were part of the discussions connected with canceling the A-12 program—particularly after the fall of the Berlin Wall. Thus just as Sisyphus was condemned to eternally roll the stone up the hill, the stewards of the public trust are obligated every day and in every way to improve effectiveness and efficiency—in a system designed for the former but indifferent to the latter. In fact, to do less would be unethical if not criminal, barring the issues of national survival or sovereign interests. Nonetheless, it is good to realize that priorities and demands shift over time. Cost, schedule, and performance are traditional criteria by which we judge success in weapons development. Of these three factors, however, performance tends to dominate the most when we are

planning for war (the ability of systems to overcome a potential enemy held sway throughout much of the Cold War). In time of conflict, program schedules tend to overshadow other considerations (such as quickly modifying and fielding the Patriot during the Gulf War). In prolonged periods of relative peace (the current situation) cost becomes dominant.

Yet another paradox exists in this area. While the system is indeed designed for equity and equal access, rules governing acquisition create a procedure so complex that it raises barriers which can block competition. In fact, despite objections to the contrary, defense contractors entrenched in the current system have only a limited interest in changing it. As long as this situation exists, DOD cannot expect to attract new technology-rich firms to the defense arena.

Acquisition Bashing

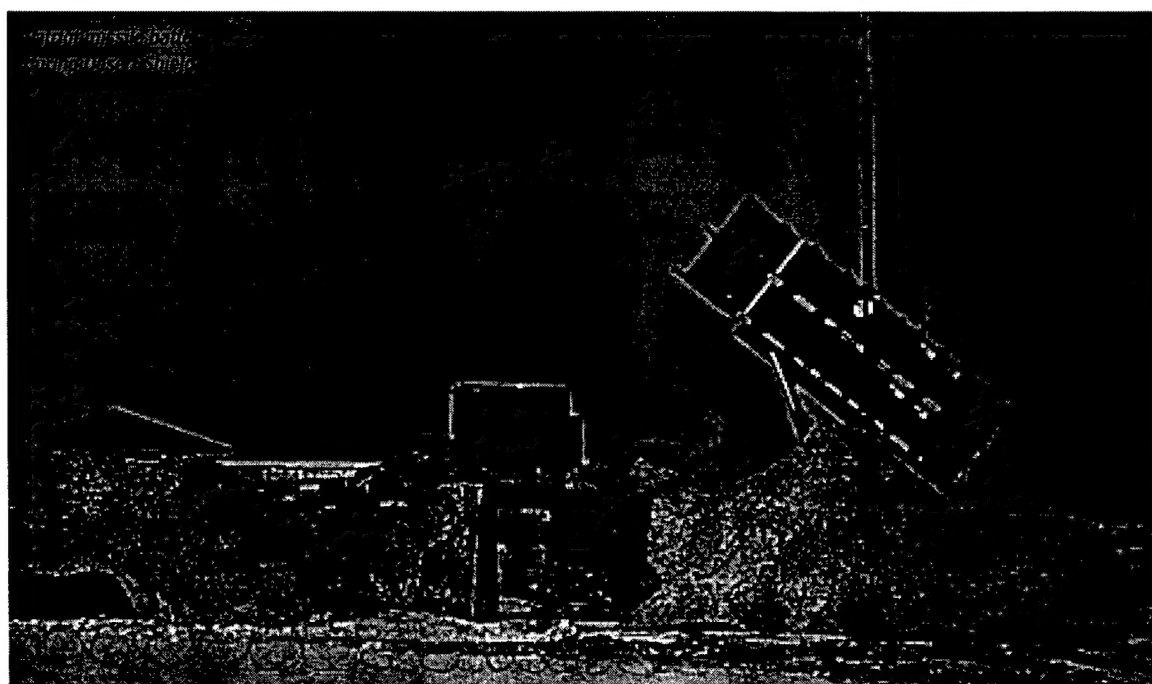
Critics of the way the bureaucracy acquires systems and equipment have been fixtures on the scene since the last century. Historically, some of their charges have been well founded while others only make good headlines. Serious investigations were conducted into war profiteering in the wake of World War I. Over the years critics have debated cost reimbursement and fixed-price contracts. From the Hoover Commissions (1949 and 1953) to the Fitzhugh Commission (1970), Grace Commission (1983), Packard Commission (1985), and Federal Streamlining Act (1994), review

boards and investigative panels under both Democrat and Republican administrations have sought to eliminate excesses—real and imaginary—in government and defense acquisition.

Most reform initiatives have been nobly motivated and have enhanced the system. They are likely to influence the future political military landscape. But these same efforts rest uneasily on an implicit and potentially misleading foundation. In fact, each suggests that if we look hard enough, if we can muster sufficient creativity, a silver bullet will correct the ills of the system. But no such solution exists in a democracy. Commercial practice and other initiatives, however well conceived and intentioned, must function in a system based on public money, accountability, and trust.

Conventional wisdom depicts the defense acquisition system as comprised of three systems that include the requirements process; the planning, programming, and budgeting system (PPBS); and the acquisition management system, which maps development phases and progress milestones from concept exploration through validation, engineering, production, deployment, and support. These systems are often portrayed as intersecting like three interlocked circles in a Venn diagram. In reality they do not intersect at all; they collide.

The systems clash because they are driven by wholly different and potentially incompatible forces. The requirements process involves a threat and technological opportunity. PPBS is based on both time—the Federal budget calendar review



cycle—and resource allocation. The acquisition management system is based on milestones and approvals subject to progress, real or supposed.

The paradox is that these otherwise incompatible systems must work together for reasons which become equally clear when one examines their intended outcomes. The requirements process helps determine what we will buy and why. PPBS governs how much or how many we will produce. Finally, acquisition management shapes how we will actually develop these capabilities.

Yet another paradox associated with the defense acquisition system involves organizational structure and management practice. The system reveals a sort of organizational schizophrenia. The defense establishment, like nearly all elements of the Federal Government, is structured as

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a large functional bureaucracy based on familiar models which grew out of the industrial revolution. By the 1960s, however, government and private indus-

try began to discover the virtues of project management as a structure and approach for realigning functional experts into a dedicated team on programs like the Apollo, Polaris, and F-15. An unwillingness to disband functional organizations and home base of expertise from whence team members came, however, kept existing management structures in place. Thus in the 1970s and 1980s one saw both functional and project management preserved simultaneously in various management schemes.

Today integrated product teams are being formed across the defense acquisition community (and private industry) for project management and oversight. Like their historical antecedents, they offer the virtues of dedicated project management teams but again are often superimposed on extant functional organization structures which are never dismantled. In the final analysis, both integrated teams and functional bureaucracies work in an uneasy structural alliance by the efforts of dedicated people in what is arguably a schizophrenic paradigm for both organization and management.

Big Money, Big Results

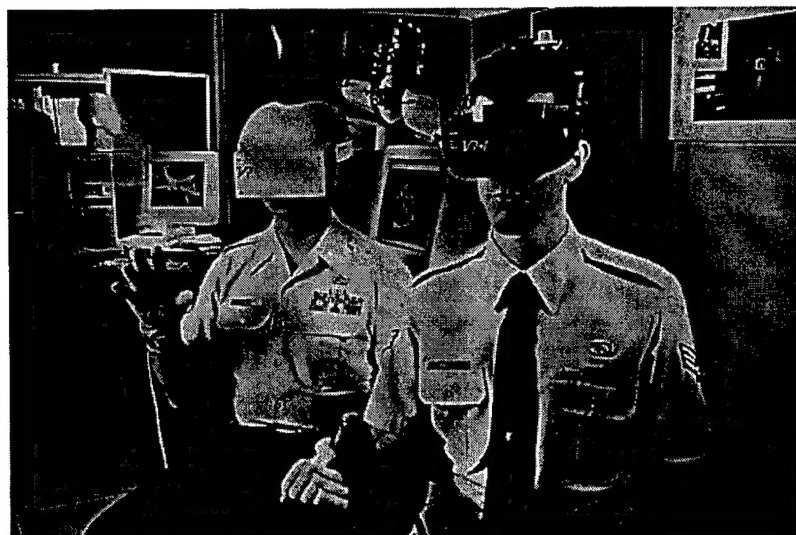
In the contemporary environment of downsizing and dramatically reduced defense budgets, defense acquisition projects claim sizable portions of the investment in national security. Current long-range projections for the joint strike fighter, for instance, place the total value of that program at three-quarters of a trillion dollars—the largest in American history. Suffice it to say that by any

reasonable standard enormous resources and a relatively large share of the budget pass through the defense acquisition system, which is highly visible in the economy. The consequences attendant to these sums are far-reaching. Congress, taxpayers, and the media all rightfully demand to know how public funds are spent. At the same time, expenditures and creation of jobs in various regions form powerful interests that determine where the funds go. Thus stringent congressional oversight of the annual defense budget is not likely to abate. This is a structural reason why reforms that involve congressional prerogatives are frequently difficult to implement.

Contractors are also powerful players. They are motivated not only by domestic markets but the desire to expand internationally. Moreover, investment in the defense sector has historically spun off innovations with benefits for society—such as surgical lasers and audio electronics, anti-skid brakes for vehicles, jet propulsion for commercial aviation—although there is conjecture about the reverse phenomenon as commercial electronics, for instance, outpace military investments in that area. Considering the technological breakthroughs derived from military research during World War II—radar, sonar, jet propulsion, nuclear fission—it may not be unreasonable to ask whether market forces in the private sector are likely to add analogous technological breakthroughs in the 21st century absent public funding. In short, the sizable flow of dollars through the national acquisition system yields a paradox of both promise and peril which constitutes another facet of the defense acquisition policy debate.

Despite persistent charges that the defense acquisition system is catastrophically broken and in need of being recreated, another quiet but powerful paradox is apparent. This system continues to produce the world's most effective and lethal systems. U.S. weapons are world class, generally highly praised by warfighters, and much in demand within the global arms marketplace. These are not surprising outcomes for a system based more on effectiveness than efficiency.

Will we continue to produce world class systems? Can we afford them in the future? How will we specify our requirements in the face of ambiguous yet real threats? How persuasively will we articulate such needs in a budgetary climate in which defense and social priorities vie for finite resources? These issues represent aspects of the context of acquisition reform. How we address them is part of the challenge for policymakers and practitioners alike.



U.S. Air Force (Fernando Serna)

Virtual reality research.

Future Warfare

A final paradox deals with the relationship between acquisition and warfare. It is based on the precept that conflicts in the next century will not be so much a matter of future determination as a reflection of decisions we are making or failing to make today.

Product development cycles, particularly sophisticated defense systems with no analogous counterparts in the commercial sector, take many years—even if anticipated streamlining initiatives shorten the process. Moreover, support and funding for high-risk/high-payoff technologies might atrophy in a climate in which modernization becomes stagnant and the threats are difficult to define. In such a system, is the stealth innovation of the next century now in its formative stages in some government laboratory? Will we recognize it and commit scarce funds to nurture it? Or can we rely on the nondefense-commercial sector to supply the next technological breakthrough critical to post-modern warfare? Will that breakthrough emerge from market forces currently shaping commercial developments? Historically both critical defense and nondefense advances—nuclear fission, radar, lasers, high speed computing, jet propulsion—have been the products of defense and public sector support. In short, how we resolve debates over technological development, information warfare, and automated unmanned weapon systems will shape the nature of conflict and our capacity to deal with it well into the 21st century.

There are indeed pressing imperatives to change the acquisition process. New technologies are being increasingly developed for the commercial marketplace using short cycle times to quickly incorporate new advances in products.

Meanwhile, the current defense acquisition system with its complexity and endemically long cycle times hinders exploitation of this huge global source of new commercially-developed technologies. Declining investment in modernization only compounds the problem. This is a key aspect of the challenge confronting reform-minded policymakers seeking to provide the Armed Forces with superior capabilities.

In the final analysis it is useful to recall that as stewards of the public trust every member of the defense establishment has an obligation to find innovative, effective, and more efficient ways to arm and equip the Armed Forces. Moreover, intelligent initiatives aimed at reforming that process will be more successful if they are grounded in the world in which they operate—a free-enterprise democratic society which is at once political, military, social, and economic. **JFQ**

NOTES

¹ Thomas L. McNaughter, *New Weapons, Old Politics: America's Military Procurement Muddle* (Washington: Brookings Institution, 1989), p. 148.

² Ethan Kapstein, *The Political Economy of National Security: A Global Perspective* (New York: McGraw-Hill, 1992), p. 117.

³ Mark Cancian, "Acquisition Reform: It's Not as Easy as it Seems," *Acquisition Review Quarterly*, vol. 2, no. 3 (Summer 1995), pp. 189-90.

⁴ Anthony Velocci, "Sea Change Looming for Defense Contracting," *Aviation Week and Space Technology*, vol. 145, no. 8 (August 19, 1996), p. 20.

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